UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,527	11/06/2003	Daniel Baumberger	42339-192058	7357

26694 7590 03/21/2007	EXAMINER	
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P.O. BOX 34385		
WASHINGTON, DC 20043-9998	ART UNIT	PAPER NUMBER
	2194	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/701,527	BAUMBERGER, DANIEL
	Examiner	Art Unit
	Abdou Karim Seye	2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 November 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 November 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

1. This is the initial office action based on the application filed on November 06, 2003.

Claims 1-20 are currently pending and have been considered below.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claim 8 is non statutory. The claimed system is constructed of software program instructions. Thus, the claimed system comprising of virtual machines and a control structure is considered as software program containing machine-executable instructions, per se (and not associated with any physical structure). See MPEP 2106.01 - I: "...computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized... ".

Also it appears that no tangible result is achieved from this communication, see MPEP 2106 (IV).

Claims 9-14 are also rejected for failing to remedy the deficiencies of the above rejected

non statutory claim 8.

Claim 15 is non statatutory. The claimed product appears that no tangible result is

achieved from this communication, it is transparent to such a user that no tangible result

is achieved, See MPEP (IV).

Claims 16-20 are also rejected for failing to remedy the deficiencies of the above

rejected non statutory claim 15.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by **Shultz et al. (US 7181744).**

Claims 1 and 15, Shultz, teaches a method (abstract) and product (col. 11:45 – col. 12: 63) comprising:

utilizing first and second virtual machine queues associated with respective first and second virtual machines to communicate between the virtual machines (FIG 1, a WQMF 81a-c, a pointer 26a-c and related text, e.g, col.5 : 25-35).

Claim 2, Shultz teaches,

updating a page table in a processor by placing a page associated with the first virtual machine in an address space associated with the second virtual machine (abstract; col. 4, lines 51-55; col. 5, lines 25-49; FIG. 1; shared memory space for the virtual machines).

Claim 3, Shultz further teaches,

wherein updating includes: placing at least one of data and an address associated with the page into a first virtual machine control structure associated with the first virtual machine(fig. 1/81a-c; WQMF); exiting the first virtual machine; placing the at least one of data and address into the second virtual machine queue; and dequeueing (fig. 1/22a-c; dispatcher) the second virtual machine queue (fig. 3, col. 16-67; col. 5, lines 50-67 and col. 6, lines 1-15).

Claim 4, <u>Shultz</u> further teaches,

wherein dequeueing includes: reading the at least one of data and address into a

second virtual machine control structure associated with the second virtual machine;

and storing the at least one of data and address into the address space associated

with the second virtual machine (col. 5, lines 60-64; col. 6, lines 16-30).

Claim 5, <u>Shultz</u> further teaches,

 wherein the page contains a message and the method further comprises: processing

the message within the second virtual machine (abstract; fig. 1; message/data).

Claim 6, <u>Shultz</u> further teaches,

wherein exiting occurs immediately after placing the at least one of data and an

address associated with the page into the first virtual machine control structure (col. 6,

lines 26-35 ; termination of the write process and exiting the WQMF).

Claim 7, <u>Shultz</u> teaches,

conveying identification information associated with the first and second virtual

machines between the first and second virtual machines via the first and second

virtual machine queues (col. 5, lines 30-32).

Claim 8, <u>Shultz</u> teaches a computer system comprising:

first and second virtual machines (fig. 1/12 and 14);

a first virtual machine control structure associated with the first virtual machine,

the first virtual machine control structure having a first virtual machine

queue adapted to enqueue and dequeue a message (fig. 1/81a);

a second virtual machine control structure associated with the second virtual machine,

the second virtual machine control structure having a second virtual machine queue

adapted to enqueue and dequeue a message (fig. 1/81b);

a virtual machine monitor coupled to the first and second virtual machines and to the

first and second virtual machine control structures, the virtual machine monitor adapted

to supervise communication between the first and second virtual machines (fig. 1/22 a-

b).

As per claims 9 and 16, it is rejected for the same reasons as claim 2 above.

As per claims 10-12 and 17, they are rejected for the same reasons as claim 3 above.

As per claims 13 and 19, they are rejected for the same reasons as claim 5 above.

As per claims 14 and 20, they are rejected for the same reasons as claim 7 above.

As per claim 18, they are rejected for the same reasons as claim 4 above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

Dononan et al (US 2004022185) discloses management of dispatch functions in a virtual machine environment.
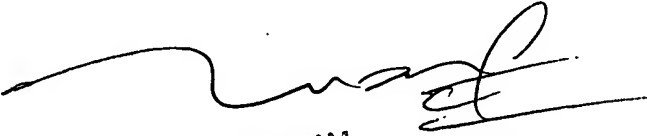
Baych (US 6223202) discloses a virtual machine pooling.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. Abdou Seye whose telephone number is (571) 270-1062. The examiner can normally be reached Monday through Friday from 7:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, contact the examiner's supervisor, William Thomson at (571) 272-3718. The fax phone number for formal or official faxes to Technology Center 3600 is (571) 273-8300. Draft or informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 273-6722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-3600.

TUAN DAM
SUPERVISORY PATENT EXAMINER

AKS
March 12, 2007